

**ABSTRACT**

The anti-viral vaccine of the present invention is produced in transgenic plants and then administered through standard vaccine introduction method or through the consumption of the edible portion of those plants. A DNA sequence encoding for the expression of a surface antigen of a viral pathogen is isolated and ligated to a promoter which can regulate the production of the surface antigen in a transgenic plant. This gene is then transferred to plant cells using a procedure that results in its integration into the plant genome, such as through the use of an Agrobacterium tumefaciens plasmid vector system. Preferably, the foreign gene is expressed in an portion of the plant that is edible by humans or animals. In a preferred procedure, the vaccine is administered through the consumption of the edible plant as food, preferably in the form of a fruit or vegetable juice which can be taken orally.